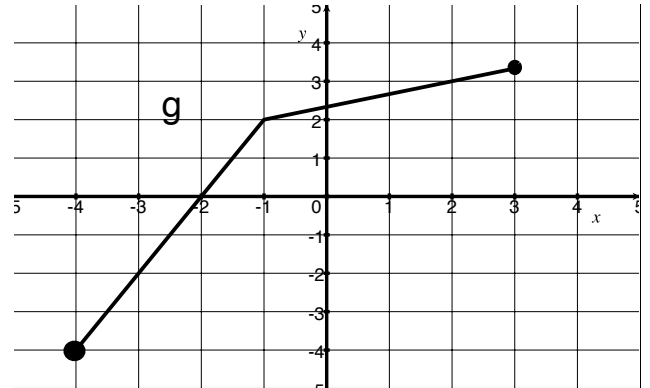
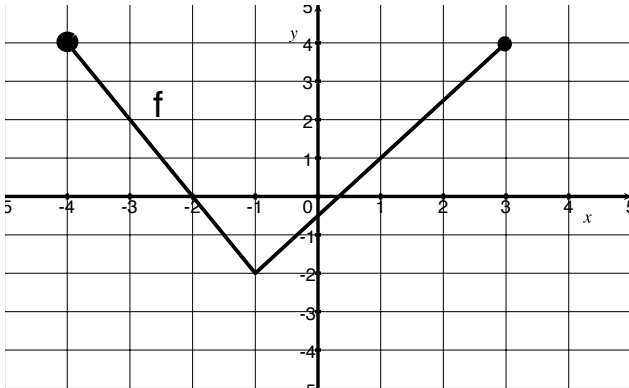


TMATH 124 UH: Quiz 3

Show *all* your work (numerically, algebraically, or geometrically) for each and simplify. No credit is given without supporting work.

1. (ProductWks #1) Let f be the function graphed on the left and g be the function graphed on the right.



- [1] (WebHW7 #4)
Find $\frac{d}{dx}(2e^x + g(x))|_{x=2}$

- [2] (ProductWks #1)
Estimate $\frac{d}{dx}(f \cdot g)|_{x=-2}$

- [2] (WebHW8 #7)
Approximate $(f/g)'(-3)$

2. [2] (§3.2 #2) Let $f(x) = \frac{3x^4 - x^2 + \sqrt{x}}{x^2}$. Find $f'(x)$.

3. [3] (§3.1 #54) Find the equation of the line tangent to $f(x) = x^{\frac{3}{2}}$ that is parallel to the line $y - 8 = 6(x + 5)$